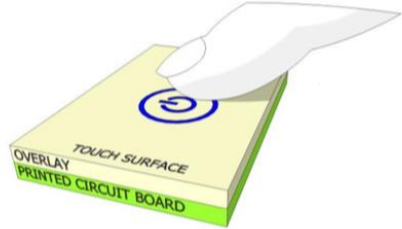


Exhibit 3

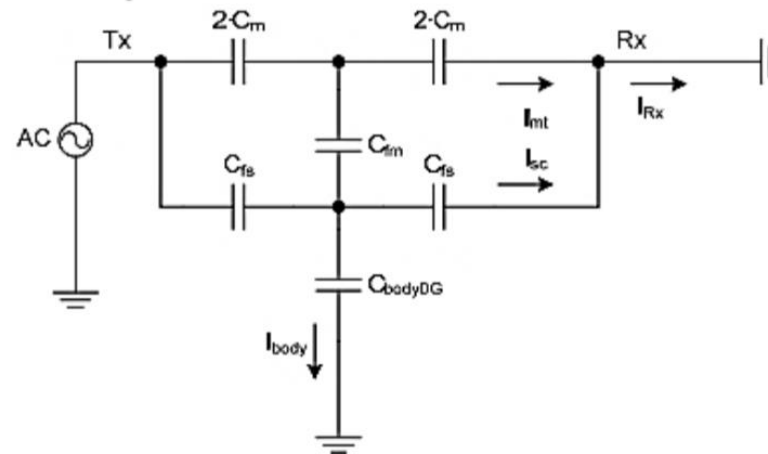
U.S. Patent No. 8,054,090 (“’090 Patent”)**Exemplary Accused Product**

Cypress products, including at least each of the following products (and their variations) infringe at least Claim 1 of the ’090 Patent: Capsense enabled Cypress products, including MBR3, CY8CMBR2110, CY8CMBR2044, CY8CMBR2016, CY8CMBR2010, CY8CMBR3XXX, and Capsense-enabled PSoC. The infringement chart below is based on the Cypress PSoC with CapSense (“CapSense”), which is exemplary of the infringement of the ’090 Patent.

Claims	CapSense
[1pre] A method comprising:	<p>The CapSense touchcontroller provides capacitive touch sensing functionality, including in noisy and moist environments.</p> <p>For example, a CapSense-enabled touch sensor may exhibit noise sources impacting signal to noise (SNR) parameters. CapSense utilizes capacitor raw capacitor charge counts to distinguish touch from noise.</p> <p>Cypress’ CapSense controllers use changes in capacitance to detect the presence of a finger on or near a touch surface, as shown in Figure 2-1. This touch button example illustrates a capacitive sensor replacing a mechanical button. The sensing function is achieved using a combination of hardware and firmware. See the Glossary for the definitions of CapSense terms.</p> <p>Figure 2-1. Illustration of a Capacitive Sensor Application</p>  <p>See https://www.cypress.com/file/41076/download</p>

	<p>Firmware is a vital component of the CapSense system. It processes the raw count data and makes logical decisions. The amount of firmware development required for your application depends on which CapSense controller family you select.</p> <p>See https://www.cypress.com/file/41076/download</p> <p>Optimal CapSense system performance depends on the board layout, button dimensions, overlay material, and application requirements. In addition to these factors, switching frequency and threshold levels must be carefully selected for robust and reliable performance. Tuning is the process of determining the optimum values for these parameters. Tuning is required to maintain high sensitivity to touch and to compensate for process variations in the sensor board, overlay material, and environmental conditions.</p> <p>Many of the CapSense devices support SmartSense, Cypress' Auto-tuning algorithm, which automatically sets parameters for optimal performance and continuously compensates for system, manufacturing and environmental changes. See SmartSense Auto-Tuning for more information.</p> <p>See https://www.cypress.com/file/41076/download</p> <p>PSoC uses Cypress patented capacitive touch sensing methods known as CapSense Sigma Delta (CSD) for self-capacitance sensing and CapSense Crosspoint (CSX) for mutual-capacitance scanning. The CSD and CSX touch sensing methods provide the industry's best-in-class Signal-to-Noise Ratio. These sensing methods are a combination of hardware and firmware techniques.</p> <p>See https://www.cypress.com/file/46081/download</p>
[1a] grounding a first plate of a charge-accumulation capacitor;	<p>The CapSense touchcontroller grounds a first plate of a charge-accumulation capacitor.</p> <p>In a mutual-capacitance measurement system, a digital voltage (signal switching between V_{DD} and GND) is applied to the TX pin and the amount of charge received on the RX pin is measured. The amount of charge received on the RX electrode is directly proportional to the mutual capacitance (C_M) between the two electrodes.</p> <p>See https://www.cypress.com/file/41076/download</p>

Figure 7-34. Equivalent Circuit of the CSX Sensor when Finger Is Placed on the Button

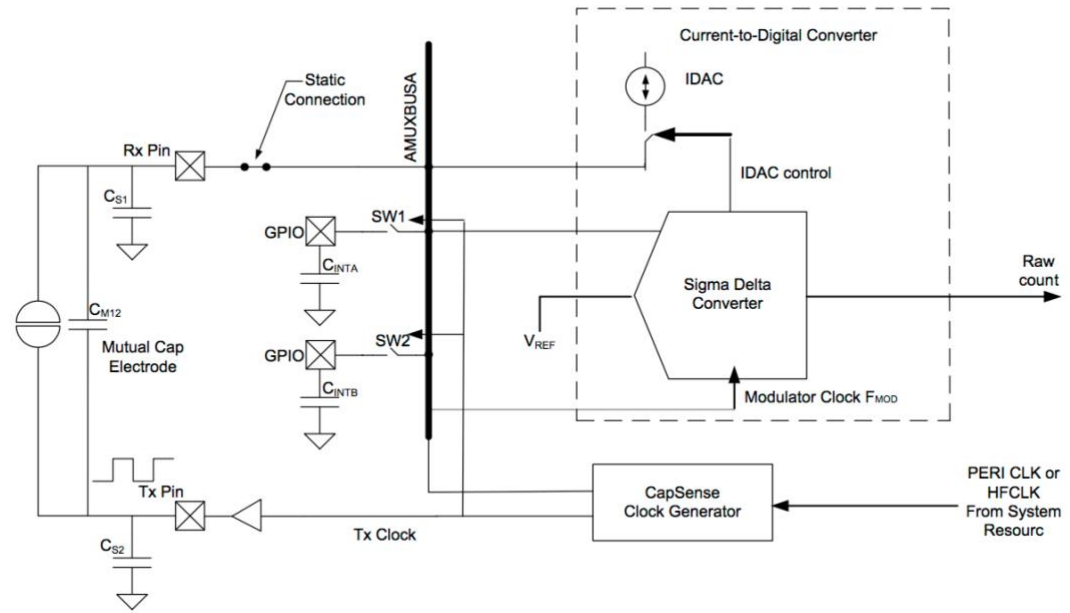


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[1b] injecting, through a resistor coupled to a voltage source, a predetermined amount of charge onto a charge-measurement capacitor;

The CapSense touchcontroller injects, through a resistor coupled to a voltage source, a predetermined amount of charge onto a charge-measurement capacitor.

For example, CapSense charges C_{INTA} to a predetermined voltage V_{ref} .



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During a sub-conversion, both SW1 and SW2 switches are operated in phase with the Tx clock. On the rising edge of the Tx clock, SW1 is closed (SW2 is open during this time) and charge flows from the Tx electrode to the Rx electrode. This charge is integrated onto the C_{INTA} capacitor, which increases the voltage on C_{INTA} . The IDAC is configured in sink mode to discharge the C_{INTA} capacitor back to voltage V_{REF} . On the falling edge of the Tx clock, SW2 is closed (SW1 is open during this time) and the charge flows from the Rx electrode to the Tx electrode. This causes the voltage on C_{INTB} to go below V_{REF} . The IDAC is configured in source mode to bring the voltage on C_{INTB} back to V_{REF} .

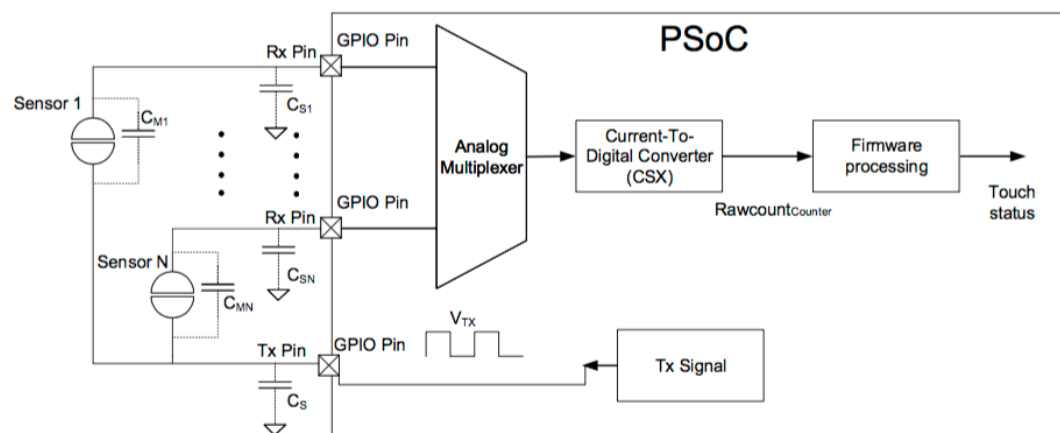
See <https://www.cypress.com/file/46081/download>

[1c] transferring an amount of charge accumulated on a second plate of the charge-accumulation capacitor to a first plate of the charge-measurement capacitor, the charge having accumulated on the second plate of the charge-

The CapSense touchcontroller transfers an amount of charge accumulated on a second plate of the charge-accumulation capacitor to a first plate of the charge-measurement capacitor, the charge having accumulated on the second plate of the charge-accumulation capacitor due at least in part to noise.

accumulation capacitor due at least in part to noise; and

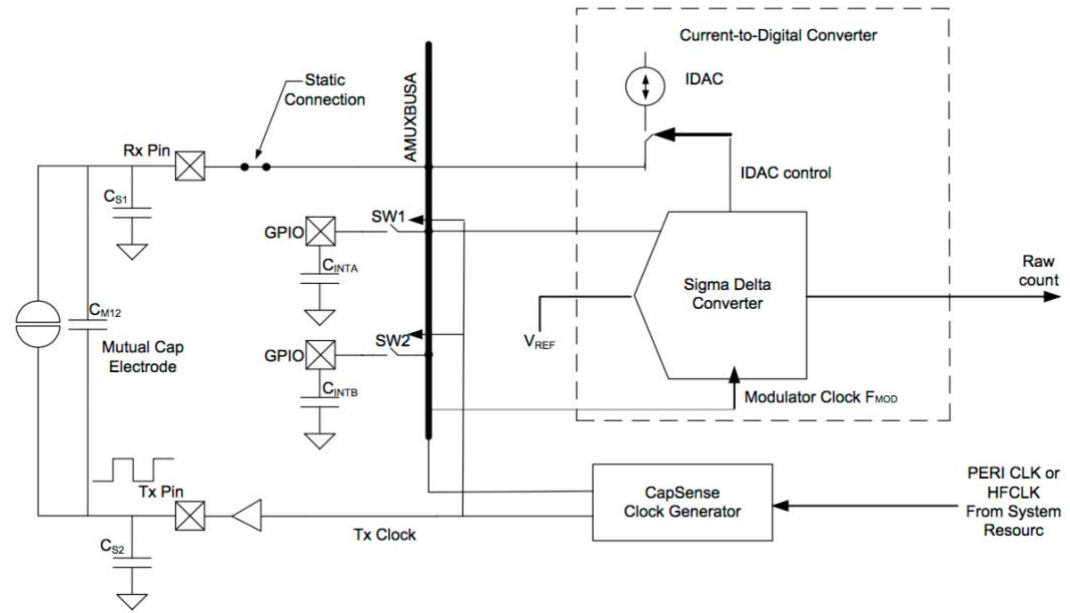
For example, CapSense transfers charge accumulated on the Rx electrode to the C_{INTA} external capacitor. The total charge count includes charges accumulated due to the parasitic capacitance and noise in the touch sensor.



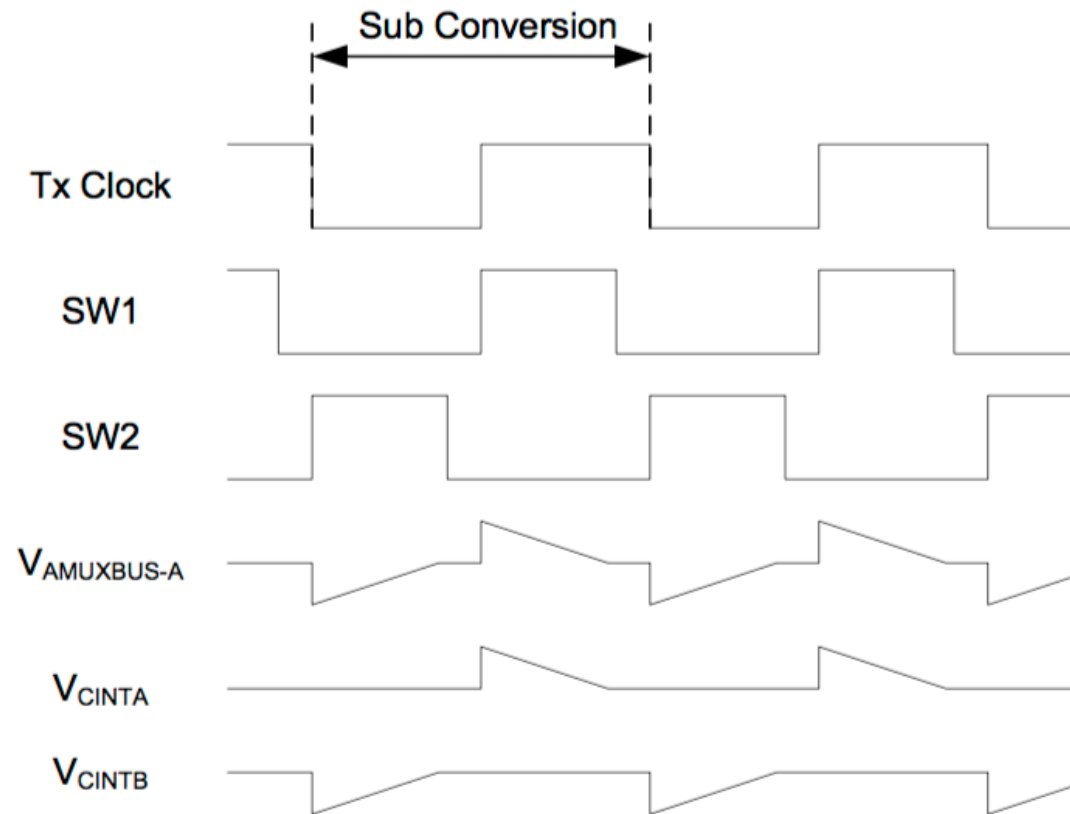
See <https://www.cypress.com/file/41076/download>

In a mutual-capacitance sensing system, a digital voltage signal switching between $VDDIO^2$ or $VDDD^3$ (if $VDDIO$ is not supported by the device) and GND is applied to the Tx pin and the amount of charge received on the Rx pin is measured.

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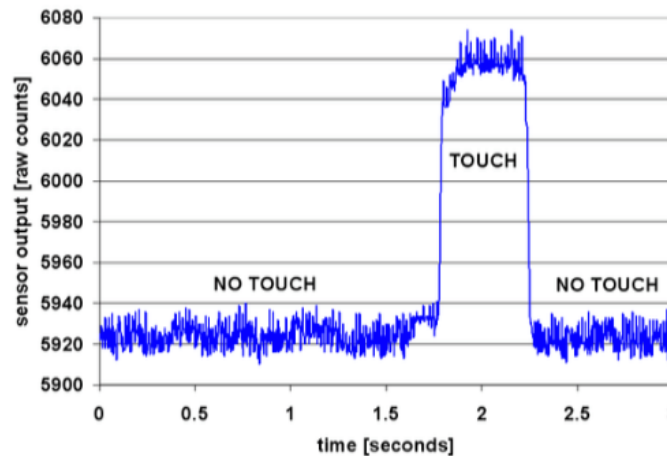
Figure 3-9 shows the voltage waveforms on the Tx electrode and C_{INTA} and C_{INTB} capacitors. The sampling – a process of producing a “sample” – is started by the firmware by initializing the voltage on both external capacitors to V_{REF} and performing a series of sub-conversions. A sub-conversion is a capacitance to count conversions performed within a Tx clock cycle. The sum of results of all sub-conversions in a sample is referred to as “raw count”.

During a sub-conversion, both SW1 and SW2 switches are operated in phase with the Tx clock. On the rising edge of the Tx clock, SW1 is closed (SW2 is open during this time) and charge flows from the Tx electrode to the Rx electrode. This charge is integrated onto the C_{INTA} capacitor, which increases the voltage on C_{INTA} . The IDAC is configured in sink mode to discharge the C_{INTA} capacitor back to voltage V_{REF} . On the falling edge of the Tx clock, SW2 is closed (SW1 is open during this time) and the charge flows from the Rx electrode to the Tx electrode. This causes the voltage on C_{INTB} to go below V_{REF} . The IDAC is configured in source mode to bring the voltage on C_{INTB} back to V_{REF} .

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The capacitance of the sensor in the absence of a touch is called the parasitic capacitance, C_P . Parasitic capacitance results from the electric field between the sensor (including the sensor pad, traces, and vias) and other conductors in the system such as the ground planes, traces, and any metal in the product's chassis or enclosure. The GPIO and internal capacitances of PSoC also contribute to the parasitic capacitance. However, these internal capacitances are typically very small compared to the sensor capacitance.

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[1d] determining, through a measured voltage across the charge-measurement capacitor, the amount of charge.

The CapSense touchcontroller determines, through a measured voltage across the charge-measurement capacitor, the amount of charge.

For example, CapSense sensor detects a touch by measuring voltage across C_{INTA} .

In a mutual-capacitance measurement system, a digital voltage (signal switching between V_{DD} and GND) is applied to the TX pin and the amount of charge received on the RX pin is measured. The amount of charge received on the RX electrode is directly proportional to the mutual capacitance (C_M) between the two electrodes.

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